

NOTES ON THE AMERICAN BEES OF THE GENUS *MELECTA*
(HYMENOPTERA, APOIDEA)

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The American species of *Melecta* were revised by Linsley (1939) and a supplementary paper by the same author was published in 1943. It is evident from these papers that the American distribution of this holarctic genus is anomalous. In this hemisphere most of the species are western, there being twenty or more western species and subspecies. There is, however, a single rare species in the eastern United States, and another in Puerto Rico. Curiously, it is only in the Greater Antilles that the tribe Melectini is known from the American tropics.

Through the kindness of Mr. Karl V. Krombein and the authorities of the United States National Museum, I have recently been permitted to study an interesting melectine bee from the island of Hispaniola in the Greater Antilles. This Haitian bee is a member of the genus *Melecta*, and, like *M. pantalon* (Dewitz) from Puerto Rico, is closely related to the subgenus *Melectomorpha* of western North America. It agrees with that subgenus in the bidentate inner margin of the mandibles, the thickened male flagellum, the short pubescence, the fasciate abdomen, and the broad inner rami of the claws of the middle and posterior tarsi. It differs from *Melectomorpha* as indicated below.

Nesomelecta, new subgenus

A subgenus of *Melecta*, related to *Melectomorpha* Linsley (1939) from which it differs as follows: Antennae of male more elongate, the flagellar segments scarcely broader than long; maxillary palpi very small, less than one-fourth as long as first segment of labial palpus, two- or three-segmented, first segment fixed and globular; dorsal lobes of scutellum each provided with a long, posteriorly-directed spine.

Type species: *Melecta haitensis*, new species.

As can be seen from Dewitz' (1881) figures and description, *M. pantalon* (Dewitz) obviously belongs to this subgenus. Although in *M. haitensis* the maxillary palpi are three-segmented (second and third segments subequal and each about twice as long as broad), Dewitz states that the maxillary palpi of *pantalon* are two-segmented. This may be an observational error, as the palpi are minute. More probably, in view of the excellence of the Dewitz description and figures, the palpi are actually two-segmented in *pantalon*, three-segmented in *haitensis*. It is interesting to note that *Nesomelecta*, the most specialized of all American subgenera of *Melecta* as indicated by the extreme reduction of the maxillary palpi, is also

farthest removed geographically from the generally holarctic melectine distributional area. The known localities for *Nesomelecta* are over 1,500 miles southeast of the nearest locality for the related subgenus *Melectomorpha* and over 1,000 miles from the nearest known locality for any *Melecta*.

A key to the American subgenera of *Melecta*, modified from that of Linsley (1939) and Michener (1944), is given below:

KEY TO THE AMERICAN SUBGENERA OF MELECTA

1. Dorsal lobes of scutellum each acute or armed with a tooth or spine; wings lightly infuscated or mottled 2
Dorsal lobes of scutellum rounded; wings blackish
Xeromelecta Linsley
2. Mandibles with inner margin edentate or unidentate; scutellar lobes acute dorsally or armed with a dorsal spine; thorax and usually second abdominal (first metasomal) tergum with long, erect pubescence; marginal cell rounded at apex 3
Mandibles with inner margin bidentate; scutellar lobes each with posterior tooth or spine; thorax and second abdominal tergum with patches or fasciae of appressed pale pubescence; marginal cell subtruncate at apex 4
3. Mandibles with inner margin unidentate; maxillary palpi five-segmented or with a short sixth segment; scutellar lobes acute or armed with a stout spine exceeded by surrounding pubescence; second abdominal tergum usually clothed with erect pale hair; pygidial plate slender apically, not covering its tergum
Melecta, Latreille, s. str.
Mandibles with inner margin edentate or with a very feeble tooth; maxillary palpi six-segmented, last segment nearly as long as fifth; scutellar lobes each armed with a slender curved spine as long as surrounding pubescence; second abdominal tergum without pale hairs; pygidial plate of female broad, covering exposed dorsal surface of seventh tergum *Melectomimus* Linsley
4. Maxillary palpi less than one-fourth as long as labial palpi, three-segmented; scutellar lobes each armed with posterior spine; male flagellar segments mostly scarcely broader than long
Nesomelecta, new subgenus
Maxillary palpi more than half as long as labial palpi, four-segmented; scutellar lobes armed with mere teeth; male flagellar segments mostly much broader than long *Melectomorpha* Linsley

Melecta (*Nesomelecta*) *haitensis*, new species

MALE: Length 10 mm. Black, the labrum, apical margin of clypeus, middle portions of mandibles, tegulae, and legs reddish brown; antennal flagella, pronotum, scutellum, metanotum, and posterior abdominal segments brown. Wings mottled apically with brownish in a pattern similar to that of *Melectomorpha*; veins and pterostigma brown. Punctuation fine

and dense except on lower portions of mesepisterna where the punctures are large and well separated. Antennal scape only about twice as long as broad; first flagellar segment on under side shorter than any other flagellar segment. Pubescence of type badly matted, apparently due to wetting, so that the following description may require amplification when fresh specimens are available; pubescence of face cream color, that of vertex and cheeks brown; pubescence of mesocutum short and appressed, brown with a longitudinal median band of cream and with cream along scuto-scutellar suture and at extreme sides near tegulae; sides of thorax with cream pubescence; pubescence of legs cream colored, very dense and conspicuous on outer sides of middle tibiae; abdominal terga two to four with pubescence short and appressed, black except for very broad continuous subapical bands of a dark cream color; remaining abdominal terga apparently without such bands, the pubescence being dark brown, progressively paler apically. Apex of eighth tergum shallowly emarginate.

FEMALE: Unknown.

Holotype: Port au Prince, Haiti, 1925 (G. N. Wolcott); [USNM Type No. 58428].

This species differs from *Melecta pantalon* (Dewitz) (*pantalon* Linsley, 1943) by the unbroken abdominal bands and apparently by several other characters, including the three-segmented maxillary palpi.

***Melecta (Melectomorpha) californica californica* Cresson**

A specimen of this form was collected by the author at Fresnillo, Zacatecas, Mexico, August 15, 1947. This is the southernmost record for a melectine bee in continental America.

***Melecta (Melecta) fulvida* Cresson**

This form is apparently a species distinct from *M. pacifica* Cresson for the two forms occur together throughout the entire Rocky Mountain region from British Columbia to Colorado without intergradation. There are, moreover, structural differences between the species in the males. In *M. fulvida* (male) the apical abdominal tergum is bidentate while in *M. pacifica* it is truncate. The ventral apical process of the male gonocoxite which projects beneath the base of the gonostylus is provided with very short, sparse, pale hairs in *fulvida* while it bears a brush of long black hairs in *pacifica*.

***Melecta (Melecta) atlantica* Linsley**

This species is very similar to *M. pacifica* Cresson, the pygidial plate of the female being the same shape. Unlike the type (as described by Linsley, 1943) a female from Yonah Mountain, Georgia, has some white hairs intermixed with the

black on the first metasomal tergum. The long hairs on this tergum are almost all white in *pacifica*.

MALE: Similar to *M. pacifica*, the long hairs of first metasomal tergum being very largely white, but somewhat sparser, especially medially, than in *pacifica* so that the pale band is less distinct than in that species. Apical tergum strongly bidentate (truncate in *pacifica*). Apical ventral process of male gonocoxite (which projects beneath the base of the gonostylus) provided with short sparse hairs (with long hairs in *pacifica*). Gonostylus short and rounded (in *pacifica* more elongate and acutely pointed).

Neallotype male: Kennesaw Mountain, Georgia, March 3, 1936 (P. W. Fattig) in the United States National Museum.

This species was described from a single female from Kennesaw Mountain, Georgia (Linsley, 1943). Thanks to Mr. Karl V. Krombein a male from the same locality has been sent me for study, together with a female from Yonah Mountain, Georgia, May 3, 1941 (P. W. Fattig). The species is evidently widespread in the east for there is a male from Newfoundland, New Jersey, May 30, 1910, in the collection of the American Museum of Natural History.

LITERATURE CITED

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THREE NEW NEOTROPICAL SPECIES OF THE REDUVID GENUS *PLOIARIA* SCOPOLI

(HEMIPTERA)

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Examination of specimens of *Ploiaria* collected at various localities in Puerto Rico, along the coastal plain and at El Yunque National Forest, has shown the presence of three new species closely related to *Ploiaria (Luteva) gundlachi* (Dohrn). Description of these species is given herein. A key is given to separate the three new species and *P. gundlachi*. Drawings of the male hypopygium of *P. gundlachi* (det. McAtee and Malloch) are included for comparison; these were made from specimens kindly loaned by Dr. R. I. Sailer